Tartar control agents may be incorporated into compositions of this invention. Especially effective will be agents containing phosphorous. Inorganic phosphorous tartar control agents may include sodium tripolyphosphate or any of the water-soluble pyrophosphates such as disodium pyrophosphate, dipotassium pyrophosphate and mixtures of these with tetrapotassium pyrophosphates or tetrasodium pyrophosphates. Organic phosphorous compounds that may serve as tartar control agents include polyphosphonates such as disodium ethane-1-hydroxy-1,1-diphosphonate (EHDP), methanediphosphonic acid, and 2-phosphonobutane-1,2,4-tricarboxylic acid.

Flavors are usually present in both the peroxide and, when suitable, bicarbonate compositions. These flavors may be based on oils of spearmint and peppermint. Examples of other flavoring materials include menthol, clove, wintergreen, eucalyptus and aniseed. Flavors may range in concentration from about 0.1 to about 5% by weight of the total composition.

Sweetening agents such as saccharin, sodium cyclamate, aspartame, sucrose and the like may be included at levels from about 0.1 to about 5% by weight of the total composition.

Other additives may also be incorporated into the oral compositions including preservatives, silicones, other synthetic or natural polymers such as Gantrez S-97 ®, and antigingivitis actives.

The following examples will more fully illustrate the embodiments of this invention. All parts, percentages and proportions referred to herein and in the appended claims are by weight of the total composition unless otherwise stated.

EXAMPLE 1

Typical of the present invention is a peroxide gel composition whose formulation is detailed under Table I. The formulation of Table I may be utilized in combination with a bicarbonate composition detailed under Table II, each of the compositions being held in a separate compartment of a dual-compartment dispenser.

TABLE I

Peroxide Gel Component	
Ingredient	Wt. %
Pluronic F127	20.000
Glycerin	40.000
Hydrogen Peroxide (35% food grade)	4.285
Citric Acid	0.600
Sodium Fluoride	0.240
Zinc Citrate	0.200
FD&C Blue 1	0.005
Phosphoric Acid (85% w/w)	0.150
Deionized water	Balance

TABLE II

Bicarbonate Paste Component	
Ingredient	Wt. %
Polyol II (sorbitol and other sugars)	48.710
Syloid 63XX (abrasive silica)	15.000
Sodium Bicarbonate	10.000
PEG 32 (polyethylene glycol)	5.000
Sylox 15x (thickening silica)	4.600
Sodium Lauryl Sulfate	2.980
SD Alcohol 38B	2.850
Cellulose Gum	0.800
Menthol	0.500
Sodium Saccharin	0.500
Sodium Fluoride	0.240
Titanium Dioxide	0.300

TABLE II-continued

Bicarbonate Paste Component	
Ingredient	Wt. %
Deionized water	Balance

EXAMPLE 2

A series of stability experiments were conducted to evaluate the effect of zinc citrate on stabilizing a peroxide gel when fluoride ions are present in the composition.

The test employed was the Peroxide Stability/Stress Test (PSST). Samples were exposed to accelerated aging at a temperature of 95° C. over a 6-hour period. These aging conditions were found to have good correlation with 3-month storage stability testing at 105° F. Peroxide content of the gel was assayed by oxidizing potassium iodide to iodine and titrating with sodium thiosulphate on an auto-titrator fitted with a redox electrode.

TABLE III

	PSST Results		
	Initial % H_2O_2	After 6 Hours at 95° C.	% Recovery
No Fluoride			
1 Month at RT	1.48	1.36	91.89
1 Month at 105° F.	1.47	1.34	91.16
Fluoride (0.24% NaF) with Zinc			
1 Month at RT	1.46	1.46	100.00
1 Month at 105° F.	1.47	1.43	95.97
Fluoride (0.24% NaF) Without Zinc			
1 day at RT	1.58	1.04	65.82
3 days at RT	1.52	0.63	41.45

Table III provides stability results on the composition outlined in Table I of Example 1 (with and without fluoride). From the results it can be seen that zinc citrate has a stablizing effect upon the gel composition in the presence of fluoride ion. Excellent % recovery of hydrogen peroxide is achieved despite storage of the formula (Table I) at 105° F. for extended periods of time.

The foregoing description and Examples illustrate selected embodiments of the present invention. In light thereof, various modifications will be suggested to one skilled in the art, all of which are within the spirit and purview of this invention.

What is claimed is:

1. An oral composition comprising:

(i) from about 0.1 to about 10% by weight of a peroxygen compound selected from the group consisting of urea peroxide, calcium peroxide, hydrogen peroxide, salts of perborate, salts of persilicate, salts of perphosphate and salts of percarbonate;

(ii) from about 0.01 to about 5% by weight of a physiologically-acceptable fluoride-containing compound to inhibit formation of caries on teeth selected from the group consisting of sodium fluoride, potassium fluoride, calcium fluoride, magnesium fluoride, stannous fluoride, stannous monofluorophosphate, sodium monofluorophosphate and copper fluoride; and

(iii) from about 0.01 to about 10% by weight of a zinc compound to stabilize the peroxygen compound against decomposition by the fluoride-containing compound, the zinc compound being selected from